

Appl. No.: 10/088,730
Group Art Unit: 1751
Applicants' Reply to Paper No. 5

In the Claims:

Please amend claims 35, 36 and 40, without prejudice, as shown below in the following complete listing of all claims ever presented. This listing of claims replaces all prior versions, and listings, of the claims in the instant application:

Claims 1-20 (Canceled):

Claim 21 (Previously Presented): A surfactant mixture comprising:

(a) a nonionic surfactant mixture present in an amount greater than 60% by weight, based on the weight of the surfactant mixture, the nonionic surfactant mixture comprising:

(i) at least one alk(en)yl oligoglycoside of the general formula (I),



wherein R^1 represents an alk(en)yl radical having from 4 to 22 carbon atoms, G represents a sugar radical having 5 or 6 carbon atoms and p represents a number from 1 to 10; and

(ii) at least one nonionic surfactant of the general formula (II)



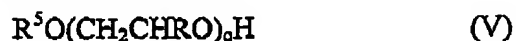
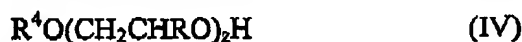
wherein x represents a number of from 1 to 30, each R independently represents a substituent selected from the group consisting of a hydrogen, a methyl group and an ethyl group, and R^2 represents a linear alkyl radical having from 16 to 22 carbon atoms; and

(b) up to 6% by weight, based on the weight of the surfactant mixture, of one or more anionic surfactants.

Claim 22 (Previously Presented): The surfactant mixture according to claim 21, wherein the nonionic surfactant mixture further comprises: (c) at least one additional nonionic surfactant selected from the group consisting of alkoxylates of an alcohol mixture according to the general formula (III), alkoxylates of an alcohol mixture according to the general formula

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(IV), alkoxylates of an alcohol mixture according to the general formula (V), and fatty acid polyglycol esters of the general formula (VI);



wherein each of y, z, q and s independently represents a number of from 1 to 30, each R independently represents a substituent selected from the group consisting of a hydrogen, a methyl group and an ethyl group; R^3 represents an alkyl radical derived from an alcohol mixture comprising from 70 to 95% by weight of C_{8-22} linear alcohols, from 5 to 30% by weight of C_{8-22} alcohols branched with methyl groups, and up to 10% by weight of C_{8-22} alcohols branched with alkyl groups having at least 2 carbon atoms; R^4 represents an alkyl radical derived from an alcohol mixture comprising from 35 to 55% by weight of C_{8-22} linear alcohols, from 10 to 20% by weight of C_{8-22} alcohols branched with methyl groups, and 35 to 45% by weight of C_{8-22} alcohols branched with alkyl groups having at least 2 carbon atoms; R^5 represents an alkyl radical derived from an alcohol mixture comprising up to 10% by weight of C_{6-10} linear alcohols, from 40 to 90% by weight of C_{12-14} linear alcohols, and up to 30% by weight of C_{16-22} linear alcohols; and wherein R^6CO represents an acyl radical having from 6 to 22 carbon atoms and R^7 represents an alkyl radical having from 1 to 4 carbon atoms.

Claim 23 (Previously Presented): The surfactant mixture according to claim 21, wherein the at least one nonionic surfactant of the general formula (II) comprises an alkoxylated mixture of linear alcohols, the mixture of linear alcohols comprising from 80 to 100% by weight of alcohols having from 16 to 22 carbon atoms and from 0 to 20% by weight of alcohols having from 6 to 14 carbon atoms, the weight percents being based on the total weight of the mixture of alcohols.

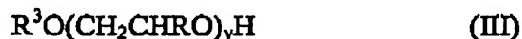
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Claim 24 (Previously Presented): The surfactant mixture according to claim 23, wherein the mixture of linear alcohols comprises from 3 to 8% by weight of linear saturated alcohols having 14 carbon atoms, from 25 to 35% by weight of linear saturated alcohols having 16 carbon atoms, and from 60 to 70% by weight of linear saturated alcohols having 18 carbon atoms.

Claim 25 (Previously Presented): The surfactant mixture according to claim 24, further comprising up to 2% by weight of linear saturated alcohols having 12 carbon atoms, and up to 2% by weight of linear saturated alcohols having 22 carbon atoms.

Claim 26 (Previously Presented): The surfactant mixture according to claim 21, wherein x represents a number of from 4 to 12 and each R represents hydrogen.

Claim 27 (Previously Presented): The surfactant mixture according to claim 21, wherein the nonionic surfactant mixture further comprises: (c) at least one additional nonionic surfactant selected from the group consisting of alkoxylates of an alcohol mixture according to the general formula (III):



wherein y represents a number of from 1 to 30, each R independently represents a substituent selected from the group consisting of a hydrogen, a methyl group and an ethyl group, and R^3 represents an alkyl radical derived from an alcohol mixture comprising from 73 to 85% by weight of C_{8-22} linear alcohols, from 13 to 25% by weight of C_{8-22} alcohols branched with methyl groups, and from 2 to 7% by weight of C_{8-22} alcohols branched with alkyl groups having at least 2 carbon atoms.

Claim 28 (Previously Presented): The surfactant mixture according to claim 21, wherein the nonionic surfactant mixture further comprises: (c) at least one additional nonionic

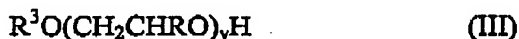
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surfactant selected from the group consisting of alkoxylates of an alcohol mixture according to the general formula (III):



wherein y represents a number of from 1 to 30, each R independently represents a substituent selected from the group consisting of a hydrogen, a methyl group and an ethyl group, and R³ represents an alkyl radical derived from an alcohol mixture comprising from 73 to 85% by weight of C₁₂₋₁₅ linear alcohols, from 13 to 25% by weight of C₁₂₋₁₅ alcohols branched with methyl groups, and from 2 to 7% by weight of C₁₀₋₁₅ alcohols branched with alkyl groups having at least 2 carbon atoms.

Claim 29 (Previously Presented): The surfactant mixture according to claim 21, wherein the nonionic surfactant mixture further comprises: (c) at least one additional nonionic surfactant selected from the group consisting of alkoxylates of an alcohol mixture according to the general formula (III):



wherein y represents a number of from 4 to 12, each R independently represents a substituent selected from the group consisting of a hydrogen, a methyl group and an ethyl group, and R³ represents an alkyl radical derived from an alcohol mixture comprising from 70 to 95% by weight of C₈₋₂₂ linear alcohols, from 5 to 30% by weight of C₈₋₂₂ alcohols branched with methyl groups, and up to 10% by weight of C₈₋₂₂ alcohols branched with alkyl groups having at least 2 carbon atoms.

Claim 30 (Previously Presented): The surfactant mixture according to claim 21, wherein the nonionic surfactant mixture further comprises: (c) at least one additional nonionic surfactant selected from the group consisting of alkoxylates of an alcohol mixture according to the general formula (IV):



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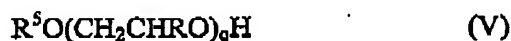
wherein z represents a number of from 1 to 30, each R independently represents a substituent selected from the group consisting of a hydrogen, a methyl group and an ethyl group, and R^4 represents an alkyl radical derived from an alcohol mixture comprising from 50 to 60% by weight of branched alcohols, and from 40 to 50% by weight of linear alcohols.

Claim 31 (Previously Presented): The surfactant mixture according to claim 21, wherein the nonionic surfactant mixture further comprises: (c) at least one additional nonionic surfactant selected from the group consisting of alkoxylates of an alcohol mixture according to the general formula (IV):



wherein z represents a number of from 4 to 12, each R represents hydrogen, and R^4 represents an alkyl radical derived from an alcohol mixture comprising from 50 to 60% by weight of branched alcohols, and from 40 to 50% by weight of linear alcohols.

Claim 32 (Previously Presented): The surfactant mixture according to claim 21, wherein the nonionic surfactant mixture further comprises: (c) at least one additional nonionic surfactant selected from the group consisting of alkoxylates of an alcohol mixture according to the general formula (V):

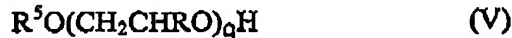


wherein q represents a number of from 1 to 30, each R independently represents a substituent selected from the group consisting of a hydrogen, a methyl group and an ethyl group, and R^5 represents an alkyl radical derived from an alcohol mixture comprising up to 5% by weight of C_{6-10} linear alcohols, from 55 to 85% by weight of C_{12-14} linear alcohols, and from 10 to 25% by weight of C_{16-22} linear alcohols.

Claim 33 (Previously Presented): The surfactant mixture according to claim 21, wherein the nonionic surfactant mixture further comprises: (c) at least one additional nonionic

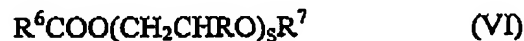
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surfactant selected from the group consisting of alkoxylates of an alcohol mixture according to the general formula (V):



wherein q represents a number of from 4 to 12, each R represents hydrogen, and R^5 represents an alkyl radical derived from an alcohol mixture comprising up to 10% by weight of C_{6-10} linear alcohols, from 40 to 90% by weight of C_{12-14} linear alcohols, and up to 30% by weight of C_{16-22} linear alcohols.

Claim 34 (Previously Presented): The surfactant mixture according to claim 21, wherein the nonionic surfactant mixture further comprises: (c) a fatty acid polyglycol ester of the general formula (VI):



wherein s represents a number of from 10 to 15, each R represents hydrogen, R^6CO represents an acyl radical having from 16 to 18 carbon atoms and R^7 represents a methyl group.

Claim 35 (Currently Amended): The surfactant mixture according to claim 21, wherein the at least one alk(en)yl oligoglycoside of the general formula (I) and the at least one nonionic surfactant of the formula (II) are present in a weight ratio of from 20:1 to 1:20.

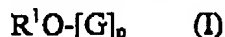
Claim 36 (Currently Amended): The surfactant mixture according to claim 22, wherein at the least one alk(en)yl oligoglycoside of the general formula (I) and the combined at least one nonionic surfactant of the formula (II) and at least one additional nonionic surfactant are present in a weight ratio (a):(b)+(c) of from 10:1 to 1:20.

Claim 37 (Previously Presented): A solid laundry detergent comprising from 5 to 30% by weight, based on the weight of the detergent, of a surfactant mixture, wherein the surfactant mixture comprises:

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(a) a nonionic surfactant mixture present in an amount greater than 60% by weight, based on the weight of the surfactant mixture, the nonionic surfactant mixture comprising:

(i) at least one alk(en)yl oligoglycoside of the general formula (I),



wherein R^1 represents an alk(en)yl radical having from 4 to 22 carbon atoms, G represents a sugar radical having 5 or 6 carbon atoms and p represents a number from 1 to 10; and

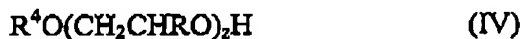
(ii) at least one nonionic surfactant of the general formula (II)



wherein x represents a number of from 1 to 30, each R independently represents a substituent selected from the group consisting of a hydrogen, a methyl group and an ethyl group, and R^2 represents a linear alkyl radical having from 16 to 22 carbon atoms; and

(b) up to 6% by weight, based on the weight of the surfactant mixture, of one or more anionic surfactants.

Claim 38 (Previously Presented): The solid laundry detergent according to claim 37, wherein the nonionic surfactant mixture further comprises: (c) at least one additional nonionic surfactant selected from the group consisting of alkoxylates of an alcohol mixture according to the general formula (III), alkoxylates of an alcohol mixture according to the general formula (IV), alkoxylates of an alcohol mixture according to the general formula (V), and fatty acid polyglycol esters of the general formula (VI);



wherein each of y, z, q and s independently represents a number of from 1 to 30, each R independently represents a substituent selected from the group consisting of a hydrogen, a methyl group and an ethyl group; R^3 represents an alkyl radical derived from an alcohol mixture

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comprising from 70 to 95% by weight of C₈₋₂₂ linear alcohols, from 5 to 30% by weight of C₈₋₂₂ alcohols branched with methyl groups, and up to 10% by weight of C₈₋₂₂ alcohols branched with alkyl groups having at least 2 carbon atoms; R⁴ represents an alkyl radical derived from an alcohol mixture comprising from 35 to 55% by weight of C₈₋₂₂ linear alcohols, from 10 to 20% by weight of C₈₋₂₂ alcohols branched with methyl groups, and 35 to 45% by weight of C₈₋₂₂ alcohols branched with alkyl groups having at least 2 carbon atoms; R⁵ represents an alkyl radical derived from an alcohol mixture comprising up to 10% by weight of C₆₋₁₀ linear alcohols, from 40 to 90% by weight of C₁₂₋₁₄ linear alcohols, and up to 30% by weight of C₁₆₋₂₂ linear alcohols; and wherein R⁶CO represents an acyl radical having from 6 to 22 carbon atoms and R⁷ represents an alkyl radical having from 1 to 4 carbon atoms.

Claim 39 (Previously Presented): The solid laundry detergent according to claim 37, wherein the at least one nonionic surfactant of the general formula (II) comprises an alkoxylated mixture of linear alcohols, the mixture of linear alcohols comprising from 80 to 100% by weight of alcohols having from 16 to 22 carbon atoms and from 0 to 20% by weight of alcohols having from 6 to 14 carbon atoms, the weight percents being based on the total weight of the mixture of alcohols.

Claim 40 (Currently Amended): The solid laundry detergent according to claim 39 37, wherein the mixture of linear alcohols comprises from 3 to 8% by weight of linear saturated alcohols having 14 carbon atoms, from 25 to 35% by weight of linear saturated alcohols having 16 carbon atoms, and from 60 to 70% by weight of linear saturated alcohols having 18 carbon atoms.

Claim 41 (Previously Presented): The solid laundry detergent according to claim 37, further comprising up to 2% by weight of linear saturated alcohols having 12 carbon atoms, and up to 2% by weight of linear saturated alcohols having 22 carbon atoms.

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Claim 42 (Previously Presented): The solid laundry detergent according to claim 37, wherein x represents a number of from 4 to 12 and each R represents hydrogen.

Claim 43 (Previously Presented): The solid laundry detergent according to claim 37, further comprising an anitfoam, the antifoam being present in an amount of from about 0.05 to 5% by weight, calculated as active substance content based on the detergent.

Claim 44 (Previously Presented): A method of preparing a foam-controlled, solid laundry detergent, said method comprising: providing a surfactant mixture; providing one or more solid laundry detergent composition formulating auxiliaries; and combining the surfactant mixture and the one or more auxiliaries; wherein the surfactant mixture comprises

(a) a nonionic surfactant mixture present in an amount greater than 60% by weight, based on the weight of the surfactant mixture, the nonionic surfactant mixture comprising:

(i) at least one alk(en)yl oligoglycoside of the general formula (I),



wherein R¹ represents an alk(en)yl radical having from 4 to 22 carbon atoms, G represents a sugar radical having 5 or 6 carbon atoms and p represents a number from 1 to 10; and

(ii) at least one nonionic surfactant of the general formula (II)



wherein x represents a number of from 1 to 30, each R independently represents a substituent selected from the group consisting of a hydrogen, a methyl group and an ethyl group, and R² represents a linear alkyl radical having from 16 to 22 carbon atoms; and

(b) up to 6% by weight, based on the weight of the surfactant mixture, of one or more anionic surfactants.